

REMARKS

Claims 1, 3-14 and 16-19 are pending in this application. By this Amendment, claims 2 and 15 are canceled without prejudice to or disclaimer of the subject matter contained therein. Claims 1, 3, 4, 7 and 13 are amended and new claims 16-19 are added. Support for these amendments can be found in claims 2 and 15 as originally filed and in the specification as originally filed, for example, at paragraphs [0029] and [0049]. Support for the new claims can be found in original claims 8, 9, 11 and 12. Thus, no new matter is added.

Applicant thanks the Examiner for the indication that claims 8, 9, 11 and 12 would be allowable if rewritten in independent form. Because the rejection to claims 1 and 4, from which claims 8, 9, 11 and 12 indirectly depend, is overcome for the reasons described below, claims 8, 9, 11 and 12 are in condition for allowance.

I. Rejection Under 35 U.S.C. §112, second paragraph

The Office Action rejects claims 1 and 4 under 35 U.S.C. §112, second paragraph as incomplete for omitting essential elements and for omitting essential structural cooperative relationships of elements. Applicants respectfully traverse this rejection.

Specifically, the Office Action asserts that claim 1 has omitted a target-water-remove-rate determining means and a connection of the dialyzer with an arteriosclerosis-related-information obtaining device and a water-remove-rate display device. The Office Action further asserts that claim 4 has omitted a dialyzer control device and a connection of dialyzer with an arteriosclerosis-related information obtaining device and a water-remove-rate changing means. Applicants submit that amended claims 1 and 4 contain these elements and relationships.

Accordingly, Applicants submit that claims 1 and 4 are complete and that the rejection has been overcome. Withdrawal of the rejection is respectfully requested.

II. Rejections Under 35 U.S.C. §102

A. Kitaevich

The Office Action rejects claims 1-6 and 13-15 under 35 U.S.C. §102(e) over U.S. Patent 6,200,485 to Kitaevich et al. Applicants respectfully traverse this rejection.

Claim 1 sets forth, in pertinent part, a "dialyzing apparatus comprising: a dialyzer ...; an arteriosclerosis-related-information obtaining device which obtains arteriosclerosis-related information that is related to a degree of arteriosclerosis of the patient, the arteriosclerosis-related information being any one of (a) normalized pulse-wave propagation velocity; (b) normalized pulse-wave propagation time, (c) a waveform of a pulse wave detected in an artery, (d) a ratio of one of a pulse pressure and a blood pressure to the other, or (e) a transfer function of a pulse wave which propagates through an artery; a target-water-remove-rate determining means a target-water-remove-rate determining means for determining a target value of the water-remove rate based on the arteriosclerosis-related information obtained by the arteriosclerosis-related-information obtaining device; and a water-remove-rate display device which displays the target value of the water-remove rate determined by the target-water-remove-rate displayed by the water-remove-rate display device, wherein the water-remove rate of the dialyzer is set by an operator to a desired value in view of the target value of the water-remove rate displayed by the water-remove-rate display device." Claim 4 sets forth, in pertinent part, a similar dialyzing apparatus, comprising "a dialyzer ...; an arteriosclerosis-related-information obtaining device which obtains arteriosclerosis-related information that is related to a degree of arteriosclerosis of the patient, the arteriosclerosis-related information being any one of (a) normalized pulse-wave propagation velocity, (b) normalized pulse-wave propagation time, (c) a waveform of a pulse wave detected in an artery, (d) a ratio of one of a pulse pressure and a blood pressure to the other, or (e) a transfer function of a pulse wave which propagates through an artery; a water-remove-rate changing

means for changing the pre-set water-remove rate to a target water-remove rate based on the arteriosclerosis-related information obtained by the arteriosclerosis-related-information obtaining device; and a dialyzer control device which operates the dialyzer at the target water-remove rate established by the water-remove-rate changing means."

In order to anticipate a claimed invention, the reference must disclose, in specific embodiments, all of the limitations of the claimed invention. That is, a prior art reference anticipates the claimed invention only where all claimed elements or steps of the claimed invention are disclosed, either expressly or inherently, in the reference. Scripps Clinic & Research Foundation v. Genentech, Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991); In re Marshall, 577 F.2d 301, 198 USPQ 344 (CCPA 1978). Kitaevich does not disclose, in specific embodiments, each and every limitation of the invention of claims 1 and 4 or their dependent claims 3, 5, 6, 13 and 14 and thus cannot anticipate claims 1, 3, 4-6, 13 and 14.

Kitaevich discloses a dialyzing apparatus including a dialyzer that may remove water from blood; a monitor for monitoring a blood-pressure-change-related-information parameter, such as the patient's blood pressure, heart rate, systemic vascular resistance, or cardiac output; and a controller for changing the water removal rate based on weight signals from infusate, drained fluid and patient weight, and on the blood-pressure-change-related-information.

However, Kitaevich does not disclose a dialyzing apparatus including an arteriosclerosis-related-information obtaining device which obtains arteriosclerosis-related information that is related to a degree of arteriosclerosis of the patient, the arteriosclerosis-related information being any one of (a) normalized pulse-wave propagation velocity; (b) normalized pulse-wave propagation time, (c) a waveform of a pulse wave detected in an

artery, (d) a ratio of one of a pulse pressure and a blood pressure to the other, or (e) a transfer function of a pulse wave which propagates through an artery, as set forth in claims 1 and 4.

Further, Kitaevich does not disclose, in specific embodiments, a dialyzing apparatus in which the water removal rate is based on arteriosclerosis-related information, according to either claim 1 or claim 4. Rather, Kitaevich discloses changing the water removal rate based on weight signals, from infusate, drained fluid and patient weight, and on blood-pressure-change-related-information.

Thus, Kitaevich fails to disclose, in specific embodiments, a dialyzing apparatus according to claims 1 and 4. Accordingly, Applicants respectfully submit that claims 1, 3, 4-6, 13 and 14 are patentable over Kitaevich. Reconsideration and withdrawal of the rejection of claims 1, 3, 4-6, 13 and 14 over Kitaevich is respectfully requested.

B. Shinzato and Lipps

The Office Action rejects claims 4-5 and 15 under 35 U.S.C. §102(b) over U.S. Patent 5,370,123 to Shinzato and also over U.S. Patent 4,718,891 to Lipps. Because claim 4 has been amended to include the limitations of non-rejected claim 13, these rejections are moot and should be withdrawn.

III. Rejection Under 35 U.S.C. §103(a)

The Office Action rejects claims 7 and 10 under 35 U.S.C. §103(a) over U.S. Patent 6,200,485 to Kitaevich et al. in view of European Patent Application 0993803 A1 to Narimatsu et al. Applicants respectfully traverse this rejection.

Claims 1 and 4, on which claims 7 and 10, respectively, depend directly or indirectly, are as set forth above.

Kitaevich is again cited for its disclosure of a dialyzing apparatus including a dialyzer that may remove water from blood; a monitor for monitoring a blood-pressure-change-related-information parameter, such as the patient's blood pressure, heart rate, systemic

vascular resistance, or cardiac output; and a controller for changing the water removal rate based on weight signals from infusate, drained fluid and patient weight, and on the blood-pressure-change-related-information.

As discussed above, Kitaevich does not teach or suggest a dialyzing apparatus including an arteriosclerosis-related-information obtaining device which obtains arteriosclerosis-related information that is related to a degree of arteriosclerosis of the patient, the arteriosclerosis-related information being any one of (a) normalized pulse-wave propagation velocity; (b) normalized pulse-wave propagation time, (c) a waveform of a pulse wave detected in an artery, (d) a ratio of one of a pulse pressure and a blood pressure to the other, or (e) a transfer function of a pulse wave which propagates through an artery, as set forth in claims 1 and 4. Kitaevich also does not disclose or suggest a dialyzing apparatus in which the water removal rate is based on arteriosclerosis-related information, according to either claim 1 or claim 4.

Accordingly, Kitaevich, for at least these reasons, would not have rendered claims 1 and 4 or their dependent claims 7 and 10 obvious. Narimatsu does not provide the information or motivation missing from Kitaevich.

Narimatsu is cited for its disclosure of a blood pressure monitoring apparatus, which continuously monitors the blood pressure of a patient by obtaining pulse-wave-propagation-velocity-relating information. Specifically, Narimatsu discloses obtaining pulse-wave-propagation-relating information using a measuring device (see Narimatsu, col. 2, lines 40-45) and determining the relationship between that pulse-wave-propagation-velocity-relating information and an estimated blood pressure. See Narimatsu, col. 3, lines 12-18.

However, regardless of its actual teachings, Narimatsu does not teach or suggest a dialyzing apparatus including an arteriosclerosis-related-information obtaining device which obtains arteriosclerosis-related information that is related to a degree of arteriosclerosis of the

patient, the arteriosclerosis-related information being any one of (a) normalized pulse-wave propagation velocity; (b) normalized pulse-wave propagation time, (c) a waveform of a pulse wave detected in an artery, (d) a ratio of one of a pulse pressure and a blood pressure to the other, or (e) a transfer function of a pulse wave which propagates through an artery, or in which the water removal rate is based on arteriosclerosis-related information, according to either claim 1 or claim 4. Accordingly, Narimatsu does not remedy the shortcomings of Kitaevich.

Accordingly, Applicants respectfully submit that, for at least the reasons discussed above, claims 7 and 10 are patentable over Kitaevich even in view of Narimatsu. Thus, reconsideration and withdrawal of this rejection is respectfully requested.

IV. New Claims


New claims 16-19 are directed to the subject matter set forth in original claims 8, 9, 11 and 12. For at least the same reasons that claims 8, 9, 11 and 12 are allowable, Applicants submit that new claims 16-19 are allowable.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 3-14 and 16-19 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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